

Application Serial Number 10/535,070
Response to Office Action
Dated September 27, 2006

RECEIVED
CENTRAL FAX CENTER

DEC 27 2006

1. Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. *(Original)* A method of manufacturing nanowires from semiconductor material, comprising the steps of:

providing a patterned etching mask having openings on a surface of a substrate made of the semiconductor material, which openings have a substantially uniform pitch;

placing the substrate with the etching mask in a liquid etchant for the semiconductor material;

anodically etching so as to form substantially parallel pores with a pitch corresponding to the pitch of the openings in the etching mask at a current density such that the diameter of the pores becomes at least as great as the pitch of the pores, whereby nanowires are formed;

oxidizing a surface of the nanowires, whereupon said surface is removed by etching; and

removing the nanowires from the substrate by means of vibration, characterized in that the anodic etching is carried out in a first time period and a second time period, which periods correspond to a first and a second region along the nanowires, such that etching takes place in the second period at a higher current density than in the first period so that the nanowires formed have a greater diameter in the first region than in the second region, with the result that the nanowires break off in the second region upon removal.

Application Serial Number 10/535,070
Response to Office Action
Dated September 27, 2006

2. *(Original)* A method as claimed in claim 1, characterized in that the removal takes place in a bath wherein a dispersion of the nanowires is formed.
3. *(Original)* A method as claimed in claim 1, characterized in that the step of oxidation and removal of the surface of the nanowires is repeated a number of times.
4. *(Previously Presented)* A method as claimed in claim 1, characterized in that the anodic etching is carried out during a plurality of alternating first and second time periods so as to form a plurality of first and second regions which alternate along the lengths of the nanowires.
5. *(Original)* A method as claimed in claim 1, characterized in that the nanowires are provided with a layer of a desired material in the dispersion.
6. *(Original)* A method as claimed in claim 5, characterized in that the desired material is provided by means of a sol-gel process.
7. *(Previously Presented)* A method as claimed in claim 5, characterized in that the material is silicon dioxide to which a luminescent coloring agent is bound.
8. *(Previously Presented)* A dispersion of nanowires of a semiconductor material in a dispersing agent obtainable by the method as claimed in claim 2.
9. *(Original)* A dispersion of nanowires of a semiconductor material in a dispersing agent, which nanowires are provided with a surface layer of a desired material.
10. *(Original)* A dispersion as claimed in claim 9, characterized in that the length of the wires lies in a range of between 0.3 and 1 μ m.

Application Serial Number 10/535,070
Response to Office Action
Dated September 27, 2006

11. *(Previously Presented)* A dispersion as claimed in claim 8, characterized in that the length of the wires is uniform within an error margin.
12. *(Previously Presented)* A method of manufacturing a device provided with nanowires on a substrate, in which method a dispersion of nanowires is provided on the substrate, characterized in that the dispersion as claimed in claim 7 is provided on the substrate.
13. *(Original)* An electronic device comprising a layer in which nanowires are dispersed, which nanowires have a predefined length distribution.